

**CLAIMS:**

1. A medical connector suitable for use in coupling a fluid delivering conduit to a fluid receiving conduit for administering fluid to a patient, said medical connector comprising:

a first medical connector housing part having a first end sized to mate with a first medical fitting on one of said fluid receiving conduit and said fluid delivering conduit and a second end having a selected first surface feature formed thereon,

second medical connector housing part having a first end configured to mate with a second medical fitting on one of said fluid receiving conduit and said fluid delivering conduit, and a second end having a selected second surface feature complementary in shape to the first surface feature of the first housing part, so that when assembled the first surface feature of the first housing part couples with the second surface feature of the second housing part to form a fluid connection therebetween, and

a locking mechanism for locking together one of said medical connector housing parts and said first medical fitting, comprising a protrusion on the first end of the first medical housing parts and screw threads on said first medical fitting adapted to receive the protrusion,

wherein said first surface feature is sized and configured so as to only mate with the complementary shaped second surface feature to prevent another fluid delivering conduit associated with a differently configured surface feature from being connected to the fluid receiving conduit, thereby preventing the accidental administration of another fluid to the patient through the first and second housing parts.

2. The medical connector of claim 1, wherein the first medical connector housing comprises:

an inner body rigidly connected to the protrusion and containing a central fluid lumen; and

an outer sleeve surrounding the inner body configured to rotate in a first direction about the inner body.

3. The medical connector of claim 2, wherein the first medical connector housing part further includes a ratchet mechanism to prevent rotation of the outer sleeve in a second direction opposite the first direction.

4. The medical connector of claim 3, wherein the ratchet mechanism comprises teeth on an inner surface of the outer sleeve engaging a pawl formed on an outer surface of the inner body.
5. The medical connector of claim 3, wherein the first medical connector housing part is locked to the medical fitting by inserting the protrusion into the threads and rotating the medical connector in the second direction such that the protrusion engages the threads, thereby screwing the first medical connector housing part into the medical fitting.
6. The medical connector of claim 5, wherein rotation of the medical connector in the first direction causes the outer sleeve to rotate about the inner body while the protrusion is maintained in an engaged position with the threads.
7. A method of administering fluid to a patient, comprising
  - providing a fluid receiving conduit connected to the patient and having a first medical fitting coupled to the distal end of the fluid receiving conduit, said first medical fitting including screw threads;
  - locking a first medical connector housing part to said first medical fitting, wherein said first medical connector housing part has a first end having a protrusion adapted to mate with the screw threads of the first medical fitting, and a second end having a selected first surface feature formed thereon,
  - providing a fluid delivering conduit associated with a fluid source and having a second medical fitting coupled to the distal end of the fluid delivering conduit,
  - attaching a second medical connector housing part to said second medical fitting, wherein said second medical connector housing part has a first end adapted to mate with the second medical fitting, a second end having a selected second surface feature complementary in shape to the first surface feature of the first housing part and a set of valves to prevent the flow of fluid through the second medical connector housing part, and
  - connecting said first medical connector housing part to said second medical connector housing part so that when assembled the first surface feature of the first housing part couples with the second surface feature of the second housing part to form a dedicated fluid path from the fluid source to the patient,
  - wherein said first surface feature is sized and configured so as to only mate with the complementary shaped second surface feature to prevent another fluid delivering conduit associated with a differently configured surface feature from being

connected to the fluid receiving conduit and wherein one of the first and second medical connector housing parts includes a set of valves to prevent fluid flow through the dedicated fluid path unless the first housing part is properly mated with the second housing part, thereby preventing the accidental administration of another fluid to the patient through the first and second housing parts.

8. The method of claim 7, wherein the first medical connector housing part comprises:

an inner body rigidly connected to the protrusion and containing a central fluid lumen; and

an outer sleeve surrounding the inner body configured to rotate in a first direction about the inner body.

9. The method of claim 8, wherein the first medical connector housing part further includes a ratchet mechanism to prevent rotation of the outer sleeve in a second direction opposite the first direction.

10. The medical connector of claim 9, wherein the ratchet mechanism comprises teeth on an inner surface of the outer sleeve engaging a pawl formed on an outer surface of the inner body.

11. The medical connector of claim 9, wherein the first medical connector housing part is locked to the medical fitting by inserting the protrusion into the threads and rotating the medical connector in the second direction such that the protrusion engages the thread, thereby screwing the first medical connector housing part into the medical fitting.

12. The medical connector of claim 11, wherein rotation of the medical connector in the first direction causes the outer sleeve to rotate about the inner body while the protrusion is maintained in an engaged position with the threads.